

Chapter 2. Description of Proposed Action and Alternatives

2.1 Introduction

This chapter describes the two alternatives analyzed in this EA. Alternative A is the No Action Alternative. Alternative B is the Proposed Action Alternative. Following the alternative descriptions section, the decision making process for advancing or eliminating alternatives is described.

2.2 No Action Alternative

The No Action Alternative includes not drilling a supplemental groundwater well and continued reliance on existing water sources for municipal water supply for the Town of Hagerman. Water supplies would likely continue to decline through the drought period. Municipal water supply may fall below projected water demand, resulting in potential water shortages. Water shortages may affect public health and safety, including water for sanitation and fire-fighting. The lack of adequate water could affect the Town of Hagerman's ability to attract new development and may result in economic decline for the town.

2.3 Proposed Action Alternative

Reclamation contractors would drill an approximately 1,050-foot-deep water well into the San Andres limestone geologic formation to tap into the subsurface aquifer of the Roswell Artesian Basin. A supplemental water supply source would provide additional capacity and operational flexibility for the Town of Hagerman and would help maintain a municipal water supply during drought. The town has obtained a permit for an exploratory water well from the NMOSE.

Water produced by the proposed well would be pumped into the existing municipal water system pipeline and transported to the existing water treatment facility. The primary collection and distribution lines are already established, although a 3-mile segment of pipeline to connect the existing water system to the proposed well would be required (Figure 1). This related action includes the construction of approximately 3 miles of 10-inch collector line within an existing road easement to connect the proposed well to the existing infrastructure.

The well site is located on Town-owned land outside of its municipal boundaries in Chaves County. The well site has been previously disturbed by agricultural activities. The well site is within an unincorporated area of the County zoned for agriculture.

The well would be placed on an existing well pad prepared by the Town of Hagerman. The well pad would be approximately 1 to 2 acres in size and would be accessed by the existing Shoshoni Road, which has a paved surface. All drilling fluids and pumped test waters would be contained on the site. No water or drilling fluids would be allowed to flow into nearby canals or natural drainages. A stormwater pollution prevention plan would be prepared and implemented by the drilling contractor. Any temporary retention structures would be built on previously disturbed land.

The proposed well would be 13 inches in diameter. The well would be carefully cased and sealed in the near-surface geology (i.e., the top 40 feet) with a 20-inch diameter casing to prevent any alteration of the near-surface water table.

2.4 Alternatives Considered But Eliminated from Detailed Analysis

Congressional authorization and funding for the Proposed Action Alternative is specifically for drought emergency municipal water wells. Therefore, no other alternatives were considered.